

Exhibit G

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

United States of America, *et al.*,

Plaintiffs,

v.

Google LLC,

Defendant.

Case No. 1:23-cv-00108-LMB-JFA

Hon. Leonie H. M. Brinkema

EXPERT REBUTTAL REPORT OF ROBIN S. LEE, PHD

February 13, 2024

Expert Rebuttal Report of Robin S. Lee, PhD

- (456) In Section VIII.A.2 of his report, Dr. Israel presents a series of figures that compare ad exchange, advertiser ad network, and DSP fees. In this section and in Section V.D.2, I show how Israel's analyses are misleading, and when appropriately presented, are consistent with the evidence of Google's ability to charge supracompetitive prices that I present here and in my initial report. In this section, I address Israel's Figures 75 and 76.⁷²¹

V.C.2.a. Dr. Israel's comparisons of AdX's take rate to other exchanges are misleading

- (457) Figure 75 in Dr. Israel's report compares average ad exchange take rates for 2020–2022. This figure “include[s] all transaction types and ad formats.” Dr. Israel includes in his backup, but does not present, a different version of this figure, which contains “estimates limited to indirect web non-video impressions where available.”⁷²²
- (458) Relying on these figures, Dr. Israel claims that Google's fees are not systematically higher than competitors' fees. However, the figure in Dr. Israel's backup that is limited to “indirect web non-video” impressions looks very different than Figure 75.
- (459) In the version limited to indirect web non-video impressions, AdX's take rates are higher than every other exchange pictured except for Yieldmo, which had a 2% US impression share in 2022.⁷²³ See Figure 29.

this is compositional and driven by transactions outside of the relevant market. (“Non-Open Auction transactions grew from 11 percent of gross revenue in 2014 to 25 percent of gross revenue in 2022.”). These “Non-Open Auction” transactions include Preferred Deal and Programmatic Guaranteed transactions which have a lower AdX take rate. *See also*, Lee Initial Report, ¶ 139, citing GOOG-AT-MDL-006217592, 10/31/2022, at -289 (Google's response to the European Commission, stating “Google's standard revenue share rate for Open Auction and Private Auction transactions is 20%, and Google's standard rate for Preferred Deal and Programmatic Guaranteed is 10%.”).

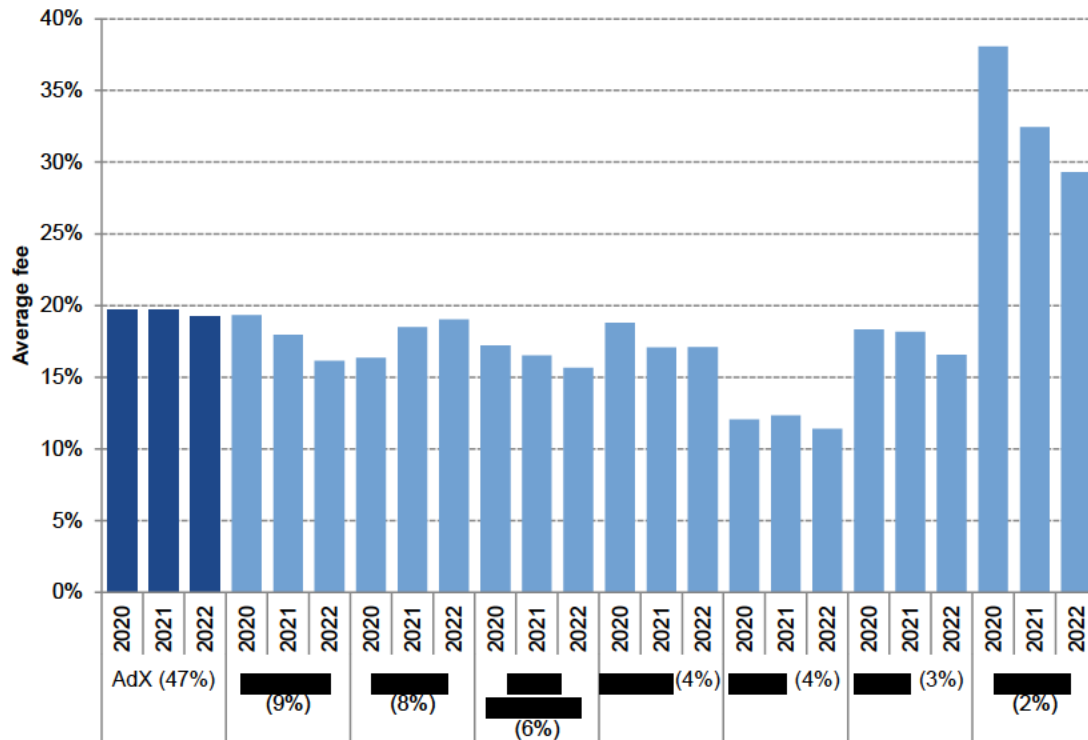
⁷²¹ In Section V.D, I address Figure 74 in which Israel presents fees for advertiser ad networks and DSPs, as well as the portion of Figure 77 that contains advertiser ad network fees.

⁷²² Israel Report, n. 778.

⁷²³ Although [REDACTED] has higher fees than AdX on indirect non-video impressions, [REDACTED] also has a 1% share worldwide, in contrast to AdX's 57% share. Yieldmo's higher fees and much, much lower share do not change my conclusion about Google's market power in the ad exchange market. A niche rival can have higher fees than a firm with monopoly power if that niche firms is differentiated and sells to a small set of customers. For example, a hypothetical monopolist of all cars that are currently sold for less than \$100,000 would likely possess substantial market power, even if on average its prices were much lower than a small firm in that market that sold only \$90,000 cars.

There is evidence that [REDACTED] is differentiated from other ad exchanges. *See, e.g.*, GOOG-TEX-00124296, at-504 Google's 2017 DVAA Strategy Book includes a “Competitive / Ecosystem Analysis” section. Under this heading includes [REDACTED] and [REDACTED]. A separate “Point players” list reads [REDACTED] (native); [REDACTED] (outstream); [REDACTED] (promoted content); etc; *See also* GOOG-TEX-00106945, at -991, 2018 Meeting notes which include “[REDACTED] (Native focused but buys all inventory).” During 2020–2022, the weighted average CPM of a [REDACTED] transaction (\$2.33) was approximately twice as high as that of other exchanges (\$1.01) in Israel Figure 75 combined. The worldwide weighted average CPM of transactions on [REDACTED] is higher than that of 9 of the 10 exchanges in Dr. Israel's Figure 75: [REDACTED] (\$1.72), [REDACTED] (\$1.48), [REDACTED] (\$1.47), [REDACTED] (\$1.31), [REDACTED] (\$1.23), [REDACTED] (\$1.22), [REDACTED] (\$1.04), and Google AdX (\$0.88). [REDACTED] has a CPM of \$2.51; its share of impressions was 1% in 2022 (Lee Initial Report, Figure 110).

It is important to recognize that AdX transacts *far more* impressions than other ad exchanges, and faces less competition

Figure 29. Dr. Israel's estimate of US ad exchange fees for indirect web non-video advertising (2020–2022)

Source: Backup materials for Israel Report, Figure 75: Israel exchange panel (see Appendix B for details); Backup materials for Lee Initial Report, Figure 91: Exchange panel.

Notes: The figure is limited to US indirect web non-video transactions. In my initial report I presented worldwide fees for AdX and third-party exchanges. See Lee Initial Report, Figure 54. Exchanges are ordered by their share of US indirect open-web display impressions in 2022. The legend contains the share of US indirect open-web display impressions in 2022 in parentheses for each exchange. Sample includes exchanges for which the data allow me to calculate take rates for indirect open-web display.

- (460) Thus, focusing on ad exchange fees for open-web indirect display transactions, Figure 29 presents patterns that are consistent with Figure 55 in my initial report. In that figure, I presented AdX's open-web indirect display take rate against the weighted-average take rate among third-party exchanges for 2018–2022. Comparing AdX's take rate to other exchanges, and taking into account their relative sizes, shows that during this time period, AdX maintained a take rate higher than the average take rate of its rivals.

on the impressions it wins than other ad exchanges (see Section V.C.1.a.i). Moreover, an exchange's ability to monetize impressions, and its attractiveness to publishers, is not solely captured by its average CPM or RPM across all transactions: e.g., an exchange can have a lower average RPM than another simply because it transacts more low-revenue impressions. To see why, consider two exchanges that have the same RPM for a subset of impressions they both compete for and win equally, but the second exchange is the only one transacting a large number of impressions with lower RPMs. The second exchange may have a lower average RPM but nonetheless have a much greater impact on publishers' payouts.

Expert Rebuttal Report of Robin S. Lee, PhD




Robin S. Lee, PhD

February 13, 2024
Date

Errata for the February 13, 2024 Expert Rebuttal Report of Robin S. Lee, PhD

Location	Original Text	Corrected Text
Paragraph 35	In this matter, the strength and importance of indirect effects for customer decisions will tend to vary across ad tech products <i>and</i> by direction	In this matter, the strength and importance of indirect network effects for customer decisions will tend to vary across ad tech products <i>and</i> by direction
Paragraph 165	Last, Dr. Israel again points to purported “multi-homing” and “substitution” statistics in Prof. Simonson’s survey, but again neither support his assertion that advertisers view app inventory as a close substitute for web inventory	Last, Dr. Israel again points to purported “multi-homing” and “substitution” statistics in Prof. Simonson’s survey, but again neither support his assertion that advertisers view instream video inventory as a close substitute for web inventory
Paragraph 176	With respect to the first point, as I explained above in Section IV.A.3, simply using two different sales channels does not equate to close substitution between them	With respect to the first point, as I explained above in Section IV.A.4, simply using two different sales channels does not equate to close substitution between them
Paragraph 257	Paragraph 257 is formatted as a paragraph.	For clarity, Paragraph 257 is a block quote from the document cited in footnote 417. For convenience, no change is made to the paragraph numbers.
Paragraph 315	Paragraph 315 is formatted as a paragraph.	Paragraph 315 is heading “IV.F” and should read as corrected: “ IV.F Dr. Dr. Israel’s single two-sided market for ad tech tools is not appropriate for evaluating the competitive effects of Google’s conduct in the ad tech stack ” For convenience, no change is made to the paragraph numbers.
Heading IV.E.3	IV.E.3 A single market for all ad tech products obscures rather than illuminates the relevant competition	Heading IV.E.3 should read as corrected: “ IV.F.1 A single market for all ad tech products obscures rather than illuminates the relevant competition”
Heading IV.E.4	IV.E.4 Dr. Israel’s proposed competitive constraints on “individual component markets” within ad tech do not survive scrutiny	Heading IV.E.4 should read as corrected: “ IV.F.2 Dr. Israel’s proposed competitive constraints on “individual component markets” within ad tech do not survive scrutiny”

Heading IV.E.5	IV.E.5 Dr. Ghose’s discussion of “alternative pathways and tools” obscures the central role played by publisher ad servers, ad exchanges, and advertiser ad networks	Heading IV.E.5 should read as corrected: “ IV.F.3 Dr. Ghose’s discussion of “alternative pathways and tools” obscures the central role played by publisher ad servers, ad exchanges, and advertiser ad networks”
Heading IV.F	IV.F Relevant geographic markets for publisher ad servers, ad exchanges, and advertiser ad networks	Heading IV.F should read as corrected: “ IV.G Relevant geographic markets for publisher ad servers, ad exchanges, and advertiser ad networks”
Heading IV.F.1	IV.F.1 Dr. Israel incorrectly dismisses the appropriateness of a worldwide geographic market	Heading IV.F.1 should read as corrected: “ IV.G.1 Dr. Israel incorrectly dismisses the appropriateness of a worldwide geographic market”
Heading IV.F.2	IV.F.2 My conclusions do not change whether the product markets are analyzed on a worldwide or US	Heading IV.F.2 should read as corrected: “ IV.G.2 My conclusions do not change whether the product markets are analyzed on a worldwide or US basis ”
Paragraph 345	Paragraph 345 is formatted as a paragraph.	For clarity, Paragraph 345 is a block quote from the document cited in footnote 532. For convenience, no change is made to the paragraph numbers.
Paragraph 436	When controlling for changes in the composition of publishers over time, DFP fees remained relatively flat between August 2014 and March 2023	When controlling for changes in the composition of publishers over time, DFP fees remained relatively flat between February 2014 and March 2023
Paragraph 493	Paragraph number 493 is formatted as red text.	As corrected, paragraph number 493 is properly formatted as black text.
Appendix A		Appendix A begins with “In addition to the materials listed below, I incorporate by reference all materials cited within the footnotes in this report and in my initial report and the accompanying back up materials.”
Appendix A.4	GOOG-DOJ-AT-00517933	GOOG-DOJ-AT-00571933
Footnote 363	I discuss the flaws with this market below in Section IV.G.	I discuss the flaws with this market below in Section IV.F .
Footnote 1022	GOOG-DOJ-AT-00517933, at -934	GOOG-DOJ-AT-00571933, at -934


Robin S. Lee, PhD

MARCH 8, 2024
Date